

WHAT IS CLAIMED IS:

1. A photosensitive composition comprising an infrared absorbing agent, a sulfonium salt polymerization initiator, a polymerizable compound, a binder polymer, and a compound having a weight average molecular weight of 3000 or less and having at least one carboxylic acid group.

2. A photosensitive composition according to claim 1, wherein the compound having a weight average molecular weight of 3000 or less and having at least one carboxylic acid group is selected from the group consisting of an optionally substituted aliphatic carboxylic acid, an optionally substituted aromatic carboxylic acid, and a carboxylic acid bonded directly to an optionally substituted heterocyclic ring.

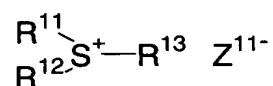
3. A photosensitive composition according to claim 1, wherein the compound having a weight average molecular weight of 3000 or less and having at least one carboxylic acid group is selected from the group consisting of a phthalic acid derivative, a trimellitic acid derivative, a pyromellitic acid derivative, a succinic acid derivative, a benzoic acid derivative and a glycine derivative.

4. A photosensitive composition according to claim 1, wherein a content of the compound having a weight average molecular weight of 3000 or less and having at least one carboxylic acid group is 0.5 to 30%

by mass based on the total solid content of the composition.

5. A photosensitive composition according to claim 1, wherein the sulfonium salt polymerization initiator is an onium salt represented by the following general formula (I):

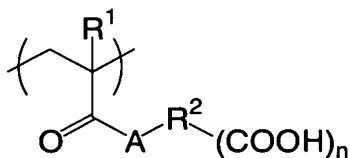
General formula (I)



wherein R^{11} , R^{12} and R^{13} each independently represent an optionally substituted hydrocarbon group having 20 or less carbon atoms; and Z^{11-} represents a counterion selected from the group consisting of a halogen ion, a perchlorate ion, a tetrafluoroborate ion, a hexafluorophosphate ion, a carboxylate ion and a sulfonate ion.

6. A photosensitive composition according to claim 1, wherein the binder polymer has a repeating unit represented by the following general formula (i):

General formula (i)



wherein R^1 represents a hydrogen atom or a methyl group; R^2 represents a linking group composed of two or more atoms selected from

the group consisting of a carbon atom, a hydrogen atom, an oxygen atom, a nitrogen atom and a sulfur atom, and wherein the total number of atoms in R^2 is 2 to 82; A represents an oxygen atom or $-NR^3-$ in which R^3 represents a hydrogen atom or a monovalent hydrocarbon group having 1 to 10 carbon atoms; and n is an integer from 1 to 5.

7. A photosensitive composition according to claim 1, wherein the infrared absorbing agent is a dye having an absorption maximum at a wavelength of 700 to 1200 nm.

8. A photosensitive composition according to claim 1, wherein the infrared absorbing agent is selected from the group consisting of cyanine dyes, phthalocyanine dyes, oxonol dyes, squarylium dyes, pyrylium salts, thiopyrylium dyes and nickelthiolate complexes.

9. A planographic printing plate precursor comprising a photosensitive layer disposed on a substrate, wherein the photosensitive layer including the photosensitive composition according to claim 1.

10. A planographic printing plate precursor according to claim 9, wherein a protective layer is disposed on the photosensitive layer.

11. A planographic printing plate precursor according to claim 9, wherein the compound having a weight average molecular weight of 3000 or less and having at least one carboxylic acid group is selected from the

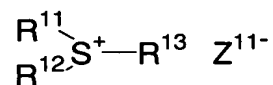
group consisting of an optionally substituted aliphatic carboxylic acid, an optionally substituted aromatic carboxylic acid, and a carboxylic acid bonded directly to an optionally substituted heterocyclic ring.

12. A planographic printing plate precursor according to claim 9, wherein the compound having a weight average molecular weight of 3000 or less and having at least one carboxylic acid group is selected from the group consisting of a phthalic acid derivative, a trimellitic acid derivative, a pyromellitic acid derivative, a succinic acid derivative, a benzoic acid derivative and a glycine derivative.

13. A planographic printing plate precursor according to claim 9, wherein the content of the compound having a weight average molecular weight of 3000 or less and having at least one carboxylic acid group is 0.5 to 30% by mass based on the total solid content of the composition.

14. A planographic printing plate precursor according to claim 9, wherein the sulfonium salt polymerization initiator is an onium salt represented by the following general formula (I):

General formula (I)

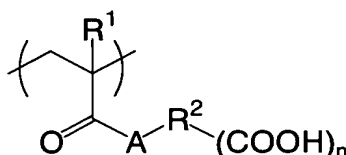


wherein R^{11} , R^{12} and R^{13} each independently represent an optionally substituted hydrocarbon group having 20 or less carbon atoms,

and Z^{11-} represents a counterion selected from the group consisting of a halogen ion, a perchlorate ion, a tetrafluoroborate ion, a hexafluorophosphate ion, a carboxylate ion and a sulfonate ion.

15. A planographic printing plate precursor according to claim 9, wherein the binder polymer has a repeating unit represented by the following general formula (i):

General formula (i)



wherein R^1 represents a hydrogen atom or a methyl group; R^2 represents a linking group composed of two or more atoms selected from the group consisting of a carbon atom, a hydrogen atom, an oxygen atom, a nitrogen atom and a sulfur atom, and wherein the total number of atoms in R^2 is 2 to 82; A represents an oxygen atom or $-NR^3-$ in which R^3 represents a hydrogen atom or a monovalent hydrocarbon group having 1 to 10 carbon atoms; and n is an integer from 1 to 5.

16. A planographic printing plate precursor according to claim 9, wherein the infrared absorbing agent is a dye having an absorption maximum at a wavelength of 700 to 1200 nm.

17. A planographic printing plate precursor according to claim 15,

wherein the infrared absorbing agent is selected from the group consisting of cyanine dyes, phthalocyanine dyes, oxonol dyes, squarylium dyes, pyrylium salts, thiopyrylium dyes and nickelthiolate complexes.

18. A planographic printing plate precursor according to claim 9, wherein a coating amount of the photosensitive layer after drying is 0.1 to 10 g/m².

19. A planographic printing plate precursor according to claim 9, wherein the protective layer comprises polyvinyl alcohol as a major component.

20. A planographic printing plate precursor according to claim 9, wherein the planographic printing plate precursor is subjected to imagewise exposure with laser light having a wavelength of 750 to 1400 nm.